WSE4S-3N2430V

W4

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
WSE4S-3N2430V	1054786

Other models and accessories ➜ www.sick.com/W4

Illustration may differ

CE

ECOLAB®

c UL us LISTED
Ind. Con. Eq.
4R97

PinPoint
by SICK

SIRIC®
optical ASIC
invented by SICK

Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
Sensing range max.	0 m … 5 m
Sensing range	0 m … 4.5 m
Emitted beam	
Light source	PinPoint LED [1]
Type of light	Visible red light
Light spot size (distance)	Ø 50 mm (2 m)
Key LED figures	
Wave length	650 nm
Adjustment	None
Part number of individual components	2060942 WS4S-3D2430V 2060991 WE4S-3N2430V
Housing design	Washdown

[1] Average service life: 100,000 h at T_U = +25 °C.

Safety-related parameters

$MTTF_D$	753 years
DC_{avg}	0 %
T_M (mission time)	20 years

Electrical data

Supply voltage U_B	10 V DC … 30 V DC [1]
Ripple	< 5 V_{pp} [2]
Protection class	III
Digital output	
Type	NPN
Switching mode	Light/dark switching
Output current $I_{max.}$	≤ 100 mA
Response time	< 0.5 ms [3]
Switching frequency	200 Hz [4]
Output function	Complementary
Circuit protection	A, B, C [5] [6] [7]
Test input sender off	TE to 0 V

[1] Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

[2] May not fall below or exceed U_V tolerances.

[3] Signal transit time with resistive load.

[4] With light/dark ratio 1:1.

[5] A = V_S connections reverse-polarity protected.

[6] B = inputs and output reverse-polarity protected.

[7] C = interference suppression.

Mechanical data

Housing	Rectangular
Design detail	Slim
Dimensions (W x H x D)	15.25 mm x 49.2 mm x 22.2 mm
Connection	Male connector M12, 4-pin
Material	
Housing	Metal, Stainless steel V4A (1.4404, 316L)
Front screen	Plastic, PMMA
Weight	45 g

Ambient data

Enclosure rating	IP66 IP67 IP68 IP69K
Ambient operating temperature	–30 °C … +70 °C [1] –30 °C … +60 °C
Ambient temperature, storage	–30 °C … +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

[1] At UV ≤ 24 V and IA < 30 mA.

Classifications

ECLASS 5.0	27270901
ECLASS 5.1.4	27270901
ECLASS 6.0	27270901

ECLASS 6.2	27270901
ECLASS 7.0	27270901
ECLASS 8.0	27270901
ECLASS 8.1	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

Connection diagram

Cd-081

BN	1	+ (L+)
WH	2	not connected
BU	3	- (M)
BK	4	Test

Cd-083

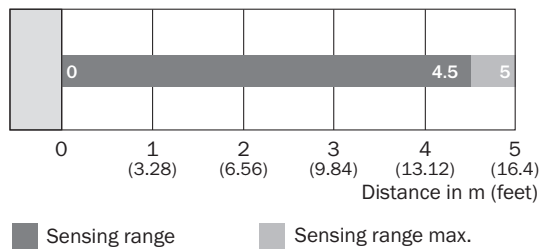| BN | 1 | + (L+) |
WH	2	$\overline{Q}$
BU	3	- (M)
BK	4	Q
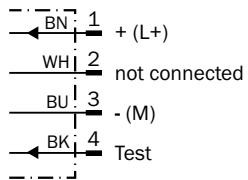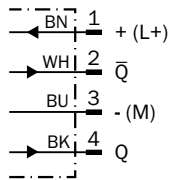
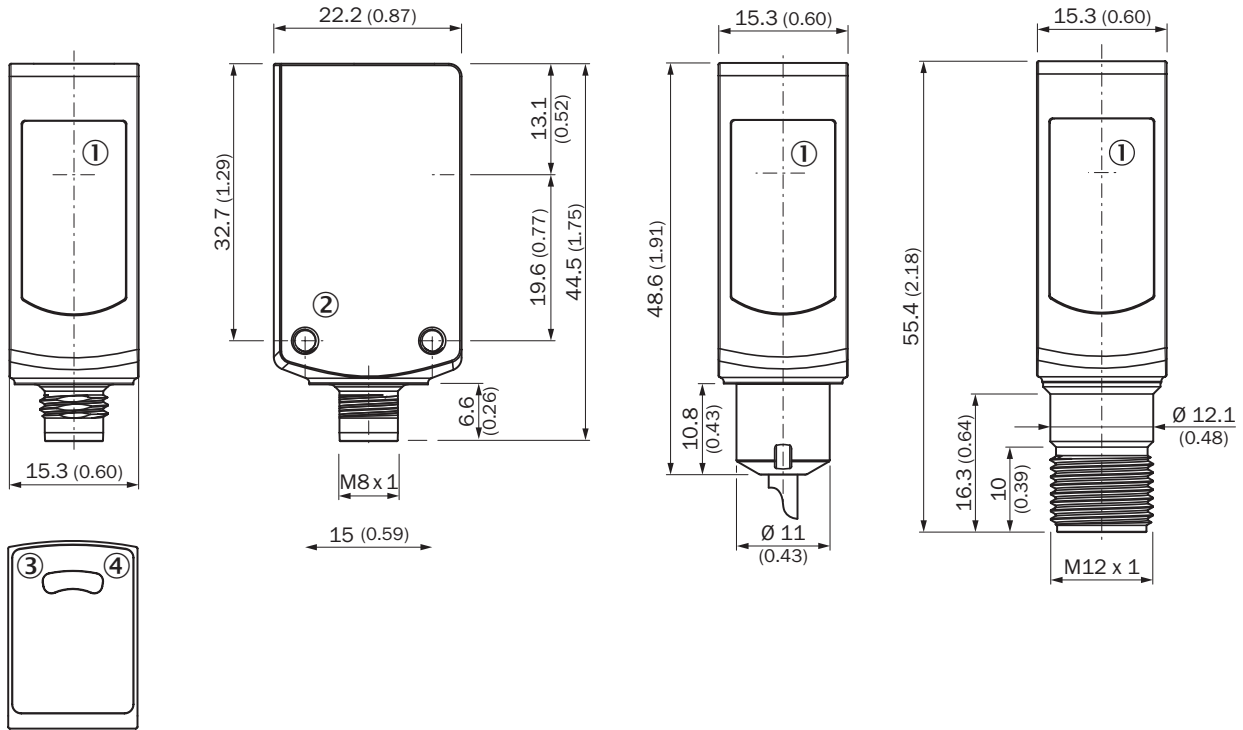## Characteristic curve

WSE4S-3V, WSE4S-3H
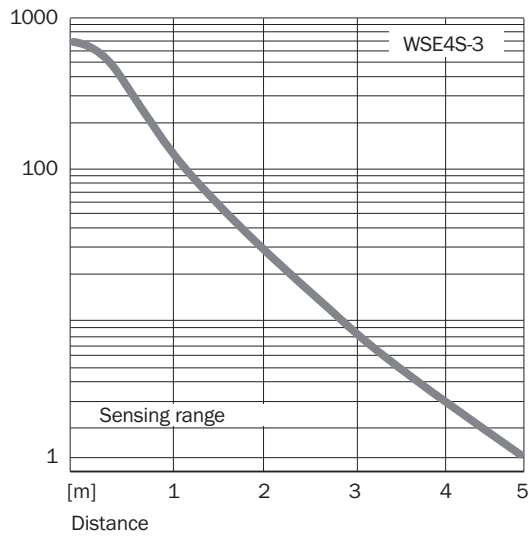
Sensing range diagram

WSE4S-3

Dimensional drawing (Dimensions in mm (inch))

WL4S-3V, WLG4S-3V, without single teach-in button

① Center of optical axis
② Threaded mounting hole M3
③ LED indicator yellow: Status of received light beam
④ LED indicator green: Supply voltage active

Recommended accessories

Other models and accessories ➜ www.sick.com/W4

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket for floor mounting, Stainless steel 1.4571, mounting hardware included	BEF-W4-B	2051630
Others			
	• **Connection type head A:** Female connector, M12, 4-pin, straight • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 4-wire, PP • **Description:** Sensor/actuator cable, unshielded • **Connection systems:** Flying leads • **Note:** This product is generally resistant to chemical cleaning agents (see ECOLAB) and other chemical compounds such as H_2O_2 and CH_2O_2. Before permanent installation is carried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid & hydrogen peroxide (H_2O_2) • **Application:** Hygienic and washdown zones, Drag chain operation	DOL-1204-G05MRN	6058476

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SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

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